

Serial No. 09/940,988

October 10, 2003

Reply to the Office Action dated June 11, 2003

Page 5 of 9

REMARKS/ARGUMENTS

Claims 1-7 are pending in this application. By this Amendment, Applicants amend the Title of the Invention, the Abstract of the Disclosure and claims 1 and 7, and cancel claims 8-15.

Claim 8-15 have been canceled since these claims are directed to a non-elected invention. Applicants reserve the right to file a divisional application to pursue prosecution of claim 8-15.

Applicants appreciate the Examiner's indication that claim 7 would be allowable if rewritten to overcome the rejection under 35 U.S.C. § 112, second paragraph, and to include all of the features of the base claim and any intervening claims.

The specification was objected to because the Abstract of the Disclosure was not in the range of 50 to 150 words and because the Title of the Invention was allegedly not descriptive. Applicants have amended the Abstract of the Disclosure to be less than 150 words, and have amended the Title of the Invention as suggested by the Examiner. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this objection.

Claim 1-7 were objected to for containing minor informalities. Applicants have amended claims 1 and 7 to correct the informalities noted by the Examiner. Regarding the Examiner's allegation that "A method" should be changed to "The method", this is clearly incorrect. MPEP 608.01(n) clearly sets forth that it is proper and accepted to recite dependent claims using "A" instead of "The" (see, for example, MPEP 608.08(n)(A) Acceptable Multiple Dependent Claim WordIng). Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection.

Claims 1-7 were rejected under 35 U.S.C. § 112, second paragraph for allegedly being indefinite. Applicant has amended claim 1 to correct the informality noted by the Examiner. Regarding the recitation of "the positions" in claims 2, 3, 5 and 7 which the Examiner alleged is indefinite, claims 2, 3, 5 and 7 recite "the positions at which the piezoelectric substrate is cut" which clearly and definitely refers to the "cutting. . ." step

Serial No. 09/940,988

October 10, 2003

Reply to the Office Action dated June 11, 2003

Page 6 of 9

recited in claim 1, **NOT** merely "the positions" as alleged by the Examiner. Thus, Applicants respectfully submit that claims 2, 3, 5 and 7 are clear and definite. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claims 1, 4 and 5 were rejected under 35 U.S.C. § 102(e) as being anticipated by Kadota et al. (U.S. 5,977,686). And claims 2, 3 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kadota et al. ('686) in view of Kadota et al. (U.S. 5,802,685). Applicants respectfully traverse these rejections.

Claim 1 recites:

"A method for adjusting a frequency characteristic of an edge reflection type surface acoustic wave device, comprising the steps of:
determining the frequency characteristic of the edge reflection type surface acoustic wave device having a piezoelectric substrate, the edge reflection type surface acoustic wave device having a pair of edges of the piezoelectric substrate which define a predetermined distance therebetween; and

cutting the piezoelectric substrate at at least one of a pair of positions which define a distance that is shorter than the predetermined distance when a final frequency characteristic of the edge reflection type surface acoustic wave device is to be higher than an obtained frequency characteristic, and cutting the piezoelectric substrate at at least one of a pair of positions which define a distance that is longer than the predetermined distance when a final frequency characteristic of the edge reflection type surface acoustic wave device is to be lower than the obtained frequency characteristic." (emphasis added)

The present claimed invention provides a method for manufacturing an edge reflection type surface acoustic wave device so as to eliminate variations in the frequency characteristics among the edge reflection type surface acoustic wave devices produced, and so as to allow a desired frequency to be achieved (see, for example, the paragraph bridging pages 3 and 4 of the specification of the present application).

The Examiner alleged that Kadota et al. ('686) teaches all of the features and method steps recited in claim 1 of the present application. Particularly, the Examiner

Serial No. 09/940,988

October 10, 2003

Reply to the Office Action dated June 11, 2003

Page 7 of 9

alleged that Kadota et al. ('686), col. 8, lines 1-11, teaches the steps of cutting the piezoelectric substrate at at least one of a pair of positions which define a distance that is shorter than the predetermined distance, and cutting the piezoelectric substrate at at least one of a pair of positions which define a distance that is longer than the predetermined distance. Applicants respectfully disagree.

Col. 8, lines 1-11 of Kadota et al. ('686) discloses that "if the distance D' defined by a distance from substrate edges 2a or 2b to the center of the electrode finger adjacent to the outermost electrode finger 3f or 4f (Fig. 1) is set to be equal to or less than $\lambda/2$, substantial ripples are generated in the passband. On the other hand, if the outermost electrode finger distance D' is set to be greater than $(\lambda/2 + (5\lambda)/16)$, the amount of attenuation of the obtained SAW filter is decreased."

Col. 8, lines 1-11 of Kadota et al. ('686) merely teaches that the spacing between outermost electrode fingers and substrate edges effect attenuation, and clearly fails to teach or suggest anything at all about cutting the piezoelectric substrate. Thus, contrary to the Examiner's allegations, Kadota et al. ('686) certainly fails to teach or suggest "cutting the piezoelectric substrate at at least one of a pair of positions which define a distance that is shorter than the predetermined distance when a final frequency characteristic of the edge reflection type surface acoustic wave device is to be higher than an obtained frequency characteristic, and cutting the piezoelectric substrate at at least one of a pair of positions which define a distance that is longer than the predetermined distance when a final frequency characteristic of the edge reflection type surface acoustic wave device is to be lower than the obtained frequency characteristic" as recited in the present claimed invention.

Kadota et al. ('685) was relied upon merely to teach a cutting process which prevents chipping in the piezoelectric substrate, and certainly fails to teach or suggest "cutting the piezoelectric substrate at at least one of a pair of positions which define a distance that is shorter than the predetermined distance when a final frequency characteristic of the edge reflection type surface acoustic wave device is to be higher

Serial No. 09/940,988
October 10, 2003
Reply to the Office Action dated June 11, 2003
Page 8 of 9

than an obtained frequency characteristic, and cutting the piezoelectric substrate at at least one of a pair of positions which define a distance that is longer than the predetermined distance when a final frequency characteristic of the edge reflection type surface acoustic wave device is to be lower than the obtained frequency characteristic" as recited in the present claimed invention. Thus, Applicants respectfully submit that Kadota et al. ('685) fails to cure the deficiencies of Kadota et al. ('686) described above.

Accordingly, Applicants respectfully submit that Kadota et al. ('686) and Kadota et al. ('685), applied alone or in combination, fail to teach or suggest the unique combination and arrangement of method steps and features recited in claim 1 of the present application.

In view of the foregoing amendments and remarks, Applicants respectfully submit that Claim 1 is allowable. Claims 2-7 depend upon claim 1, and are therefore allowable for at least the reasons that claim 1 is allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicants petition the Commissioner for a One-month extension of time, extending to October 11, 2003, the period for response to the Office Action dated June 11, 2003.

Serial No. 09/940,988

October 10, 2003

Reply to the Office Action dated June 11, 2003

Page 9 of 9

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Date: October 10, 2003


Attorneys for Applicant

Joseph R. Keating
Registration No. 37,368

Christopher A. Bennett
Registration No. 46,710

KEATING & BENNETT LLP
10400 Eaton Place, Suite 312
Fairfax, VA 22030
Telephone: (703) 385-5200
Facsimile: (703) 385-5080

RECEIVED
CENTRAL FAX CENTER
OCT 14 2003

OFFICIAL